

A Financial Psychology Intervention for Increasing Employee Participation in and Contribution to Retirement Plans: Results of Three Trials

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Despite decades of retirement plan enrollment meetings, many employees fail to fully engage in their employer-sponsored retirement plans. Under the framework of the Transtheoretical Model (TTM) of Behavior Change, this study examines the effectiveness of a financial psychology intervention designed to increase engagement in employer-sponsored retirement plans across three employee groups: 107 employees of a regional bank, 43 employees of a custom manufacturing company, and 48 employees of a construction company. Following the intervention, significant changes in plan participation, contribution rates, and one-on-one follow-up meetings with financial advisors were observed. Thirty-eight percent of previously unengaged employees became plan participants, 68% requested and held meetings with financial advisors, and contribution rates increased by 39%, resulting in a total \$199,445 increase in first-year annualized contributions and employer matching funds across the three groups.

Keywords: behavioral finance, employee engagement, financial psychology, money scripts, retirement plan meeting, Transtheoretical Model of Behavior Change

For many Americans, the thought of planning for retirement is a source of anxiety, confusion, and frustration. Accurate calculations of needed retirement saving levels are among the most financially complex Americans will encounter (Bayer, Bernheim, & Scholz, 2008). There is a widely held perception among financial service companies that people behave in ways that are counter-productive to achieving financial success primarily due to a lack of financial literacy (e.g., knowledge of finances and savings). There is some evidence that financial education programs that provide information about financial basics (e.g., budgeting, the importance of saving, various savings vehicles) can have a positive impact on financial literacy and financial behaviors (Horwitz, 2015; Huston, 2010; Walstad et al., 2017; Xiao & O'Neill, 2016). However, the field of behavioral finance has shown that this is not always the case (Fernandes, Lynch, & Netemeyer, 2014;

Martin, 2007; Miller, Reichelstein, Salas, & Zia, 2015). For example, the primary financial behavioral problems in America are overspending and a lack of savings, behaviors that are well known to be problematic, and are not solely the result of a lack of financial literacy (Klontz & Klontz, 2009).

Behavioral finance offers a variation from foundational standard finance theories by introducing the recognition that investors are affected by emotions and cognitive biases that override rational decision-making processes (Statman, 2008). A variety of cognitive and emotional considerations distract from pure market forces, which other theories propose are the principal concern of the rational investor (Shefrin & Statman, 1984). These distractions, for example, can come from beliefs and desires for status or social responsibility over wealth and can result in maladaptive financial beliefs and self-destructive financial

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behaviors (Klontz & Klontz, 2009). Thus, many financial decisions are made based on individuals' underlying beliefs about money, which may or may not be correct. Klontz and Klontz (2009) described these beliefs as *money scripts*, which are the subconscious beliefs individuals hold about money, learned in childhood, that drive financial behaviors. It is hypothesized that many of these beliefs are so deeply held that many people go through life without ever examining them (Klontz & Klontz, 2009). Confirmation bias then leads individuals to search for and interpret information that reinforces these beliefs (Nickerson, 1998). The combination of cognitive biases and inaccurate beliefs about money can limit the effectiveness of traditional financial education efforts in changing financial behaviors. The present study explores the effectiveness of a financial psychology intervention designed to motivate employees to save more in their employer sponsored retirement plan.

Traditional Approaches for Increasing Savings

Workplace Financial Education

Early workplace financial education began in earnest in the 1980s when employers began offering educational programs designed to increase financial literacy and employee contributions (Bernheim & Garrett, 2003). Traditional workplace financial education programs aim to increase knowledge of financial planning basics by providing information on the financial planning process, the importance of saving, and various savings vehicles. The United States has spent over \$670 million in financial education training programs for consumers (Consumer Financial Protection Bureau, 2013). Employer financial education is regarded among employees as a primary source of information, authority, and advice on retirement planning (Bernheim & Garrett, 1996).

Yet, despite decades of education-based employer retirement plan enrollment meetings, many employees fail to fully engage in their employer-sponsored retirement plan, which includes minimal improvement in the voluntary savings rates of employees. This is true even after accounting for the effects of the Pension Protection Act (PPA) of 2006, which introduced multiple safe harbors to automatically enroll employees, increase an employee's deferral rate, and place the employee's assets into a predetermined Qualified Default Investment Alternative (QDIA) (Munnell, 2012). The use of traditional workplace financial education programs to improve outcomes such as financial behaviors,

plan participation, and contribution rates has not been consistently supported by research and has often led to disappointing results (Benartzi & Thaler, 2007; Fernandes et al., 2014; Martin, 2007; Miller et al., 2015).

Automatic Enrollment in Retirement Plans

Automatic enrollment provisions attempt to address the problem of lack of employee engagement by taking an opt-out approach to retirement plan participation. Automatic enrollment is based on the concept of status quo bias, which assumes that when people are faced with a variety of choices, they are inclined to extend the current condition versus changing (Samuelson & Zeckhauser, 1988). In other words, individuals are likely to take the path of cognitive least resistance.

Initially, 401(k) automatic enrollment systems were showing signs of success (Gale, Iwry, & Orszag, 2005; VanDerhei, 2010); however, these trends were later reversed in light of the 2008 financial crisis and recession. Despite the greater number of enrollments resulting from the PPA of 2006, contributions decreased, cash-out hardship plan withdrawals increased, and the resulting median 401(k)/IRA balances have changed little since 2007 (Munnell, 2012). Even when automatic enrollment plans are in place, default contribution rates fail to take advantage of the full employer match (U.S. Bureau of Labor Statistics, 2015). Contributing at the level needed to receive the full employer match is considered to be one of the most basically recommended retirement behaviors for everyone except the most impatient or financially constrained households (Benartzi & Thaler, 2007).

Perhaps even more concerning is the lack of evidence supporting a connection between the money that employees save in their retirement plan through automatic enrollment, their retirement goals, and their subsequent financial behaviors. For example, without a conscious commitment to retirement planning, when automatically enrolled employees realize they have amassed a meaningful balance in their plan, they may take a loan out against it or take a full or partial distribution to meet current spending desires. While longitudinal studies are needed to confirm the increased loans from auto-enrolled employees, anecdotal evidence from pension plan providers show clear indication of this financial behavior occurring.

Financial Psychology

Given the limitations of traditional workplace financial education programs and automatic enrollment in retirement plans, there is a need for a more encompassing, effective framework for efforts to improve financial behaviors. To increase the success of financial behavior interventions, it is critical that such efforts consider what motivates individuals to follow through on recommendations for financial action or change. Financial psychology draws on psychological theories related to the process of change in order to tailor interventional approaches that successfully motivate financial action. The Transtheoretical Model (TTM) of Behavior Change (Prochaska, DiClements, & Norcross, 1992; Prochaska, Norcross, & DiClemente, 1994) has been found to be applicable to such efforts (Gutter, Hayhoe, & Wang, 2007; Kerkmann, 1998; Shockey & Seiling, 2004; Xiao, Newman, et al., 2004; Xiao, O'Neill, et al., 2004) and may provide an effective theoretical foundation for a framework to improve retirement savings behaviors.

The TTM of Behavior Change may be utilized as an approach to motivate changes in savings behavior. This model categorizes behavior change into five stages (i.e., Precontemplation: unaware of problem and not intending behavior change; Contemplation: recognize problem and considering behavior change; Preparation: preparing for behavior change; Action: implementing behavior change; and Maintenance: maintaining behavior change) through which individuals “spiral” as they implement lasting behavior changes. Each stage requires different intervention techniques to successfully motivate change (Prochaska et al., 1992, 1994). For example, those in the Precontemplation stage may be more motivated by an emphasis on better understanding the benefits of participating in a retirement plan, while those in the contemplation stage may be more motivated by an emphasis on decreasing the negatives of participating in a retirement plan. It is important that interventions aimed at improving financial behavior recognize that participants may be in various stages of change and include a variety of techniques that may be most effective at moving individuals into the action stage and motivating positive financial change (Klontz, Horwitz, & Klontz, 2015).

Stages of Change and Employee Engagement in Retirement Plans

Employees have different levels of engagement in their employer-sponsored retirement plans. Engagement can vary

from no participation at all to full participation. The TTM (Prochaska et al., 1994) can assist intervention efforts in motivating participant behavior change, thus moving them toward higher levels of engagement. The authors operationalized these levels of engagement into a hierarchy to assist in the development of effective, individualized financial psychology interventions. What follows are three levels of employee engagement in employer-sponsored retirement plans, which include: (a) actively engaged (AE) employees, (b) partially engaged (PE) employees, and (c) unengaged (UE) employees. While it is important to note that these classifications are inevitably not mutually exclusive, for the sake of clarity, each is summarized in the Horwitz–Klontz Employee Retirement Engagement Hierarchy (Figure 1).

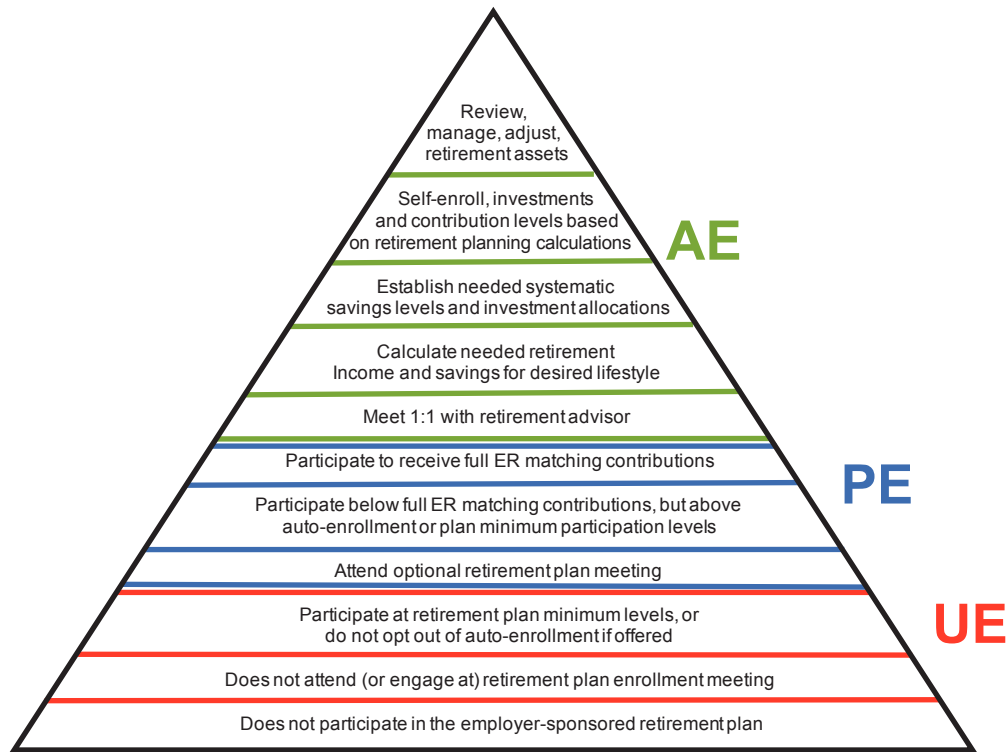
Actively Engaged

A subset of employees participate in meetings, hold follow-up one-on-one meetings with financial advisors, set proper savings levels, and actively review their statements and investment allocations. These individuals are referred to as AE employees. AE employees are motivated to participate in retirement plans and may be considered within the action or maintenance stages of change. AE employee behaviors are represented at the top level of the employee retirement engagement hierarchy. What distinguishes AE employees from other employees is their proactive participation in their employer-sponsored retirement plan toward the achievement of their retirement goals. As they relate to the study hypotheses, AE employees would be contributing to their employee sponsored retirement plan, would be benefiting from the full employer match, and would be actively engaged in financial planning.

Partially Engaged

Another segment of employees may attend mandatory meetings but do not fully engage at these meetings and may not be concerned about or understand what is being presented. As such, they miss out on opportunities to actively engage in their retirement planning. These employees may contribute minimally to the retirement plan and may receive some of the employer matching contributions. These employees are referred to as PE, and are represented in the middle of the employee retirement engagement hierarchy. PE employees are somewhat motivated to participate in retirement plans but may be considered within the preparation stage of change. PE employees lack the connection to individual retirement goals to label them as AE's and may struggle to

Figure 1. The Horwitz–Klontz employee retirement engagement hierarchy.



conceptualize their retirement and avoid thoughts of retirement planning. Both AE and PE employees are conceptualized to be in the Action or Maintenance stage of change with regard to plan engagement, but they may be spiraling through the Precontemplation, Contemplation, or Preparation stages with regard to contributing more to their retirement plans. Thus, intervention efforts should focus both on maintaining engagement and on motivating action to engage more.

Unengaged

According to the U.S. Bureau of Labor Statistics (2015), approximately 23% of employees who have access to employer sponsored retirement plans do not participate at all. This third group of employees was referred to as “UE”, and represents the bottom of the employee retirement engagement hierarchy. UE employees require further motivation to participate in retirement plans and may be considered within the Precontemplation or contemplation stages of change. Employees may not attend enrollment meetings, unless mandatory, and do not actively or even partially engage in the retirement meetings or contribute to the retirement plan. UE employees are conceptualized to be in

the Precontemplation, Contemplation, or Preparation stage with regard to contributing to their retirement plans. Thus, intervention efforts should focus on motivating employees to start actively engaging in retirement planning.

This study seeks to better understand how financial psychology theory and techniques may motivate employees across various stages of change to increase their engagement in an employee-sponsored retirement plan. Instead of using the typical retirement planning meeting tools of financial education—an introduction to online resources, recommendations to meet with advisors, and information on investments—this intervention was designed to address the employee’s unique money scripts, values, goals, and motivation toward change. The researchers hypothesized that those employees who have traditionally failed to engage in retirement planning can be motivated to take recommended financial action through a financial psychology informed intervention.

Research Hypotheses

The purpose of the present study was to examine the effectiveness of a financial psychology intervention at a

retirement plan meeting for increasing employee engagement in employer-sponsored retirement plans. The following research hypotheses were examined. Following a financial psychology intervention

H1: There will be a statistically significant increase in the number of employees who contribute to their company-sponsored retirement plan (i.e., Those who are classified as AE or PE versus UE).

H2: There will be a statistically significant increase in the overall contribution employees make to their company sponsored retirement plan

H2a: There will be a statistically significant increase in the contribution engaged employees (AE and PE) make to their company sponsored retirement plan.

H2b: There will be a statistically significant increase in the contribution UE employees make to their company sponsored retirement plan.

H3: There will be a statistically significant increase in the number of employees who are contributing at least the minimum required to receive full employer match when available.

H4: There will be a statistically significant increase in the number of employees who request and attend follow-up one-on-one meetings with an advisor.

Method

The present study utilized convenience sampling to determine the three participant groups. The samples available for the study were chosen because they were the plan sponsor's next three groups, which the plan sponsor had taken over from a previous provider. The three employee groups were comprised of 107 regional bank employees, 43 employees of a manufacturing business, and 48 employees of a construction company, all of whom had the option to participate in a traditional 401(k) plan without an auto-enrollment provision. The bank employees' plan included 6% dollar-for-dollar employer matching contributions for participants; the

construction company offered 5% dollar-for-dollar matching employer contributions; while the manufacturing business offered no matching employer contributions.

The retirement plan intervention meetings were conducted for the employees of these companies, and the data received from those meetings served as the basis for these studies. The impetus for the company meeting was the changing of the employer's retirement Plan Sponsor. All eligible employees were required to attend an informational meeting regarding a new plan and provider and to receive enrollment instructions for signing up or making changes in one's current participation. This required meeting provided a real-world laboratory to study the effectiveness of a financial psychology intervention on the behaviors of employees following the enrollment meeting.

Measures

The Klontz Money Script Inventory-Revised (KMSI-R).

The KMSI-R was used to assess money beliefs (Klontz, Seay, Sullivan, & Canale, 2014; Taylor, Klontz, & Britt, 2015). The KMSI-R consists of four distinct categories of money beliefs, including money avoidance, money status, money worship, and money vigilance. Prior research has found significant associations between these scales and financial health indicators such as income, net worth, revolving credit, money disorders, and tendency to engage in risk planning (Britt, Klontz, Tibbetts, & Letiz, 2015; Klontz, Britt, Mentzer, & Klontz, 2011). These distinct money script profiles have also been found to predict self-destructive financial behaviors including overspending, financial enabling, financial dependence, and gambling disorder (Klontz & Britt, 2012).

Plan Participation. An indication of employee engagement is whether or not they enroll in the plan and participate. Employee engagement was measured by plan participation, defined as the percentage of eligible employees who are participating in the retirement plan with any level of voluntary contributions from salary. Plan participation was recorded based on evidence of enrollment and salary deferral election. Participants were coded on a dichotomous scale where 0 = *no participation* and 1 = *employee participation* in the retirement plan.

Contribution Rates. Salary deferral rates, also known as contribution rates, are an important indicator of employee

engagement in employer-sponsored retirement plans. In order to receive the full employer match, bank employees in the first sample would need to contribute at least 6% of their salary to the company's retirement plan. This would represent an immediate 100% return on their investment and is recommended by most financial professionals. Regardless of whether or not this benchmark is reached for an employee, an increase in employee contribution rates also suggest that an employee has greater motivation to save for retirement, as this comes at a direct cost to funds available for immediate spending.

Contribution rates were tracked in four ways: (a) as percentages of salary before and after the intervention for already participating employees, (b) as percentages of salary before and after the intervention for previously eligible but non-participating employees, (c) as the percentages of salary before and after the intervention for the eligible employees in the group, and (d) as participation sufficient to receive the full employer match. Percentage of salary contributed was treated as a continuous variable, and eligibility for employer match (when available) was coded on a dichotomous scale where 0 = *full employer match not received* and 1 = *full employer match was received*. Researchers measured each participant's plan payroll contributions the month before the Plan Sponsor took over the plan, and then at the next payroll which was approximately 30 days after the plan was switched over to the new provider.

Follow-up Meetings. One of the goals of a retirement plan meeting is to encourage interested employees to sign-up for a follow-up one-on-one meeting with a financial advisor. In this meeting, the financial advisor will typically measure the client's risk tolerance, discuss retirement goals, and recommend savings percentages, appropriate investments, and asset allocations. An important measure of employee engagement is the number of employees who request and attend a one-on-one meeting with an advisor after an employer retirement plan meeting. The plan sponsor estimates that in their typical retirement plan meeting, no more than 25% of employees will voluntarily request a follow-up one-on-one meeting with a financial advisor. This estimate is consistent with the research on change, which has shown that around any given issue approximately 20% of individuals are ready to take action toward change (Prochaska et al., 1994). Some employees may not need a one-on-one meeting with an advisor affiliated with an

employer-sponsored plan. For example, an employee may be engaging in financial planning with an independent advisor or may be otherwise fully engaged in their retirement plan. As such, this measure may underestimate the number of engaged employees. However, a change in the typical requests for a one-on-one follow-up meeting with an advisor is thought to be a valid indicator of a change in engagement at the group level and was included in this analysis. Follow-up meeting participant requests were coded on a dichotomous scale where 0 = *no meeting requested* and 1 = *meeting requested*. In the same manner, *attendance* at the scheduled meeting was recorded as 1 and *cancellation or no show* was recorded as 0.

Participants

A group of 107 regional bank employees participated in Sample 1's financial psychology retirement plan meeting. The sample was skewed toward males (74%), and married individuals (81%), with an average age of 47. The group had an average annual salary of \$45,892 (median \$28,700), and an average 401(k) account balance of \$107,403 among active participants. In Sample 2, a group of 43 employees (83.7% male, 62.8% married, average age = 44) of the custom auto manufacturing business participated in the financial psychology retirement plan meeting. The group had an average salary of \$42,495 (median \$40,000), and an average 401(k) account balance of \$35,291 among active participants. A group of 48 employees (94% male, 53% married, average age = 38) of a construction business participated in Sample 3's financial psychology retirement plan meeting. The group had an average salary of \$56,420 (median \$44,200) and an average 401(k) account balance of \$30,851 among active participants. Many of the eligible employees represented in Sample 3 had been hired within the past 3 to 4 years and as a group were younger than the other two groups. As a result, their average 401(k) balance was lower than the other groups, as they had less time to accumulate contributions and growth. Tests of mean differences showed that the groups differed significantly with regard to age, gender, marital status, and preintervention average 401(k) balances. An overview of the demographic characteristics of participants from each sample can be found in Table 1.

Procedures

Preintervention Procedures. Working with the Plan Sponsor's Retirement Services division, the researchers formed a team to tailor and evaluate a financial psychology

TABLE 1. Demographics

| Variable | Sample 1 | Sample 2 | Sample 3 | Statistics |
|----------------------|-------------------|-------------------|-------------------|--------------------------------------|
| Age (mean) | 47 | 44 | 38 | $F(2,197) = 6.214, p = .002$ |
| Gender | | | | $X^2(2, N = 198) = 82.777, p = .000$ |
| Male | 79 (73.8%) | 36 (83.7%) | 46 (95.8%) | |
| Female | 28 (26.2%) | 7 (16.3%) | 2 (4.2%) | |
| Marital Status | | | | $X^2(2, N = 198) = 12.322, p = .002$ |
| Married | 86 (80.4%) | 27 (62.8%) | 26 (54.2%) | |
| Single/Widow | 21 (19.6%) | 16 (37.2%) | 22 (45.8%) | |
| Salary (mean/median) | \$45,893/\$28,700 | \$42,496/\$40,000 | \$56,420/\$44,200 | $F(2,197) = 2.379, p = .095$ |
| 401(k) Balance (avg) | \$107,403 | \$35,219 | \$30,851 | $F(2,197) = 3.269, p = .033$ |

retirement plan meeting intervention, which consisted of four managers and five staff members. The team was represented by a cross-section of disciplines and skills within the insurance organization. The lead author directed the team and facilitated the development of the company-specific intervention within the context of the plan sponsor's clientele and outcome goals. The team was educated on financial psychology and change theory, money scripts, and building intrinsic motivation for change using a variety of applied exercises. The training program consisted of approximately 8 hours of reading materials and 6 hours of didactic instruction and group discussion. Group discussion was used as an informal measure of knowledge acquisition.

Using the KMSI-R, the team created hypothesized segmented employee groups, using financial psychology profiles, based on the plan sponsor's typical client employees. Based on specific items from the KMSI-R, the team grouped several questions together to form a collection of money belief statements. This collection of statements was then used to create several straw customers, which represented groups of employees with similar financial beliefs and behaviors. These groups were identified and named by the representative straw customer profiles based on the team's knowledge of their customers and included information such as sample names, gender, ages, and financial beliefs. Five team members then conducted independent, one-on-one, face-to-face interviews with a total of 75 market representative employees and listened for specifically identifying KMSI-R statements. Based on these interviews, the team further refined these straw customer profiles and associated them into AE, PE, and UE employee groups according

to the Horwitz-Klontz Employee Retirement Engagement Hierarchy. Because the predata for the groups were not provided from the employer and previous plan sponsor, the information needed to distinguish between PE and AE was unavailable. Therefore, as mentioned earlier, participation was used to separate the engaged (AE and PE) from the UE, and results were reported as such. Additionally, since personally identifiable data was not available, it was not possible to determine if the AE behaviors within the group represented a change within the individual or not. In future research, having the ability to ask questions of plan participants to determine their specific level of engagement (AE or PE) pre and post intervention, would facilitate a richer level of analysis. These profiles were then used to develop targeted messaging intended to resonate and motivate each group of employees, under the specific direction of the researchers. Special attention was given to the optimal financial psychology interventions for PE and UE employees to enhance their receptivity to thinking about and planning for retirement.

The financial psychology retirement plan meeting intervention was uniquely designed to match the needs and goals of the plan sponsor's retirement services division. The intervention was designed to motivate employees to identify, challenge, and change their beliefs about money and retirement, and also motivate them to take positive financial action in their employer-sponsored retirement plan.

The intervention drew techniques from experiential financial therapy (Klontz, Bivens, Klontz, Wada & Kahler, 2008; Klontz, Klontz, & Tharp, 2016), cognitive behavioral financial therapy (Nabeshima & Klontz, 2015), motivational

interviewing (Horwitz & Klontz, 2013; Klontz, Horwitz, & Klontz, 2015; Klontz, Kahler, & Klontz, 2016; Miller & Rollnick, 2002), and solution-focused financial therapy (Archuleta, Grable, & Burr, 2015; de Shazer et al., 2007; Nichols & Schwartz, 2001). Furthermore, the intervention was designed to target the financial psychological needs of these unique segmented employee groups. A guided imagery exercise was utilized for employees to create an ideal vision for retirement. Participants were provided with the opportunity to create a visual representation of their desired retirement lifestyle. The financial psychology retirement meeting intervention was designed to replace a standard 60-minute employee benefits presentation.

The intervention was delivered to all three groups in a similar fashion. For all samples, information on the actual rates of plan participation and preintervention contribution rates were obtained from the previous pension administrator. The participant information was captured prior to the retirement plan sponsor take over, and in the month following the financial psychology intervention meeting when the payroll contribution figures were provided to the new plan sponsor. Changes in participation rate, contribution rates, and number of employees requesting and holding follow-up meetings were provided by the employer. Employees who were participating prior to the intervention were labeled AE and PE and those not participating were labeled UE.

Sample 1 Procedures. The first employer group consisted of 107 employees eligible to participate in the plan. The employer offered matching contributions for plan participants, with a dollar-for-dollar match up to 6%. This intervention was conducted like a typical enrollment meeting and was delivered by the company presenter who was a member of the development team. The same company presenter was used for each sample. Data was collected on the employee group and all attendees prior to the meeting, and resulting financial behaviors were captured after the intervention as well. Employees who were participating prior to the intervention were labeled AE and PE and those not participating were labeled UE. A summary of eligible employees, pre- and post-intervention, from all three studies can be seen in Table 2.

Sample 2 Procedures. A second employer group was tested using the same intervention meeting materials and facilitation personnel. This group was comprised of 43 employees

in the custom auto manufacturing business. The manufacturing employer did not offer matching contributions for plan participants. The employer had recently established an Employee Stock Option Plan (ESOP) for employees and had ceased making matching contributions to their existing 401(k) plan. For this reason, the intervention for this group was primarily focused on increasing plan participation among currently UE employees as the primary measure for engagement. This study also differed by not measuring the number of employees who contributed enough to receive the employer match, given there was no employer match in the retirement program.

Sample 3 Procedures. The third employer group was tested using the same intervention meeting materials and facilitation personnel. This group was comprised of 48 employees in a construction business. Similar to Sample 1, the construction employer offered matching contributions for plan participants, with a dollar-for-dollar match up to 5%. The intervention for this group was focused on increasing plan participation among currently UE employees, increasing contribution rates, and increasing requests for one-on-one meetings with an advisor.

Results

Approach to Data Analysis

Data analysis of the outcome measures consisted of either: (a) repeated measures ANOVA examining the effect from pre- to post-intervention with continuous data, (b) related-samples exact McNemar Tests for examining the effects from pre- to post-intervention with binary data, and (c) binomial tests of significance for single-sample binary data with hypothesized values. A .05 level of significance was adopted for all tests. Effect sizes were computed as partial eta squared values for ANOVAs. Table 3 shows the results of samples 1, 2, and 3.

Sample 1: Regional Bank

Plan Participation. Prior to the plan sponsor taking over the retirement plan, there were 75 employees participating in the 401(k) plan (70%) out of the 107 eligible employees. Following the intervention, 17 of the 32 nonparticipants enrolled in the plan, while only 1 of the 75 participants ceased contributions. Thus, total participation in the plan increased from 70% to 85%, a 21% overall increase in plan participation, and a 50% decrease in nonparticipation.

TABLE 2. Employee Engagement

| | Sample 1 (N = 107) | Sample 2 (N = 43) | Sample 3 (N = 48) | Total (N = 198) |
|-------------|--------------------|-------------------|-------------------|-----------------|
| Pre | | | | |
| AE/PE | 75 (70%) | 16 (37%) | 21 (44%) | 112 (57%) |
| UE | 32 (30%) | 27 (63%) | 27 (56%) | 86 (43%) |
| Post | | | | |
| AE/PE | 91 (85%) | 26 (60%) | 28 (58%) | 148 (75%) |
| UE | 16 (15%) | 17 (40%) | 20 (42%) | 53 (27%) |
| Change | | | | |
| UE to AE/PE | 16 (15%) | 10 (23%) | 7 (15%) | 33 (17%) |

Note. AE = actively engaged; PE = partially engaged; UE = unengaged.

TABLE 3. Results for the Within Group Comparisons

| Variable | Sample 1 | Sample 2 | Sample 3 |
|--|------------------|-----------------|------------------|
| Participation | | | |
| Pre (n) | 75 (70%) | 16 (37%) | 21 (44%) |
| Post (n) | 91 (85%)*** | 26 (60%)** | 28 (58%)* |
| Contribution % (preintervention participants) | | | |
| Pre (M/SD) | 7.48% (5.17%) | 6.75% (5.40%) | 6.14% (2.33%) |
| Post (M/SD) | 9.13% (5.91%)*** | 6.93% (5.31%) | 6.86% (2.63%)*** |
| Effect Size | 0.349 | 0.157 | 0.879 |
| Contribution % (preintervention nonparticipants) | | | |
| Pre (M/SD) | 0% | 0% | 0% |
| Post (M/SD) | 2.97% (3.25%)*** | 1.52% (2.34%)** | 1.30% (2.38%)** |
| Effect Size | 0.463 | 0.304 | 0.235 |
| Contribution % (combined) | | | |
| Pre (M/SD) | 5.24% (5.52%) | 2.51% (4.62%) | 2.69% (3.43%) |
| Post (M/SD) | 7.29% (5.96%)*** | 3.53% (4.52%)** | 3.73% (3.72%)*** |
| Effect Size | 0.374 | 0.215 | 0.200 |
| Full Employer Match | | | |
| Pre (n) | 50 | N/A | N/A |
| Post (n) | 69*** | N/A | N/A |
| One-on-one Meetings | 71%*** | 53%*** | 73%*** |

* $p < .05$. ** $p < .01$. *** $p < .001$.

A related-samples exact McNemar Test indicated that this result was statistically significant at $p < .001$.

Contribution Rates. Prior to the intervention, the average employee retirement plan contribution for the 75 employees, as a percentage of salary, was 7.48%. Following the intervention, the average amount of retirement plan contribution for those same 75 employees increased to

9.13%, representing an increase of 22%. A repeated measure ANOVA indicated that these changes were statistically significant $F(1,74) = 39.612, p < .001$, partial eta squared = .349.

Following the intervention, the UE group as a whole increased their contribution percentage from 0% to 2.97% ($F(1,31) = 26.739, p < .001$, partial eta squared = .463). The

17 new participants from the prior group of 32 UE employees decided to contribute an annual average of 5.59%. The average contribution rate for all previously eligible employees increased from 5.24% to 7.29% (39%) after the intervention ($F(1,106) = 63.455, p < .001$, partial eta squared = .374).

Prior to the intervention 50 of the 75 participating employees (66.7%) contributed at the 6% level or above and received the full benefit of the employer match. After the intervention, this number increased to 69 of these 75 participating employees (92%) contributing at the 6% level or above and receiving the full employer match. This represented a 25.3% increase, and a related-samples exact McNemar Test determined that these changes were a statistically significant at $p < .001$.

Follow-up Meetings. After the intervention, 76 of 107 employees requested a follow-up one-on-one meeting with a financial advisor to discuss retirement planning, an overall rate of 71%. A binomial test showed a statistically significant difference ($p < .001$) between the proportion of employees who requested a one-on-one meeting (71%) and the previous rate reported by the company (25%). Table 1 shows the results of the trials from the perspective of the Horwitz–Klontz Hierarchy of Employee Engagement.

Sample 2: Manufacturing Group

Plan Participation. Prior to the intervention meetings, 16 of the 43 (37.2%) employees were participating in the employer retirement plan. Following the intervention meetings, there were 26 of the 43 employees who were enrolled in the plan (60.5%). The change of 10 new engaged employees who enrolled following the intervention meetings represents a 62.5% increase in employee plan participants ($p < .002$).

Contribution Rate. Prior to the intervention, the average employee retirement plan contribution for the 16 employees, as a percentage of salary, was 6.75%. Following the intervention, the average amount of retirement plan contribution for those same 16 employees increased to 6.93%. A repeated measure ANOVA indicated that these changes were not statistically significant.

Following the intervention, the UE group as a whole increased their contribution percentage from 0% to 1.52%

($F(1,26) = 11.340, p < .002$, partial eta squared = .304). The 10 new participants from the prior group of 27 UE employees decided to contribute an average annual contribution of 4.1%. The average contribution rate for all previously eligible employees increased from 2.51% to 3.53% (41%) after the intervention ($F(1,42) = 11.494, p < .002$, partial eta squared = .215).

Follow-up Meetings. Following the intervention, 23 of the 43 employees requested a one-on-one meeting with a financial representative to discuss their retirement planning and enrollment. All of the 23 employees who met with the financial advisor subsequently enrolled in the retirement plan, and two employees who attended the intervention but did not meet with an advisor, also enrolled in the plan. A binomial test showed a statistically significant difference ($p < .001$) between the proportion of employees who requested a one-on-one meeting following the intervention (53%) and the previous rate reported by the company (25%).

Sample 3: Construction Company

Plan Participation. Prior to the plan sponsor taking over the retirement plan, there were 21 of 48 (43.7%) eligible employees participating in the 401(k) plan. Following the intervention, 7 of the 27 nonparticipants enrolled in the plan, and all 21 prior participants persisted with the new plan. Thus, total participation in the plan increased from 21 to 28 participants (58.3%), a 33% overall increase in plan participation, and a 26% decrease in nonparticipation ($p < .016$).

Contribution Rates. Prior to the intervention, the average employee retirement plan contribution for the 21 previously participating employees, as a percentage of salary, was 6.14%. Following the intervention, the average amount of retirement plan contribution for those same 21 employees increased to 6.86%, representing an increase of 11.7% ($F(1,20) = 145.268, p < .001$, partial eta squared = .879).

Following the intervention, the UE group as a whole increased their contribution percentage from 0% to 1.3% ($F(1,26) = 7.99, p < .009$, partial eta squared = .235). The 7 new participants from the prior group of 27 UE employees decided to contribute an annual average of 5%. The average contribution rate for all previously eligible employees increased from 2.69% to 3.73% (39%) after the intervention ($F(1,47) = 11.774, p < .001$, partial eta squared = .200).

Prior to the intervention all 21 of the participating employees (100%) contributed at the 5% level or above and received the full benefit of the employer match. Following the intervention, all 21 continued to contribute at or above this level.

Follow-up Meetings. After the intervention, 35 of the 48 attendees requested a follow-up one-on-one meeting with a financial advisor to discuss retirement planning, an overall rate of 73%. A binomial test showed a statistically significant difference ($p < .001$) between the proportion of employees who requested a one-on-one meeting (73%) and the previous rate reported by the company (25%).

Discussion

The results of this study show support for the effectiveness of financial psychology retirement meeting interventions for increasing engagement in employer-sponsored retirement plans. Following the interventions, significant changes were observed in the hypothesized direction for all variables under study in the three employer groups. Specifically, Hypothesis 1 was supported in all three groups, which showed statistically significant increases in the number of employees who contribute to their company-sponsored retirement plan. Hypothesis 2 was also supported across all three groups, which showed a statistically significant increase in the overall contribution employees make to their company sponsored retirement plan. Hypotheses 2a and 2b were also supported across all three groups, which showed statistically significant increases in the contribution engaged employees (AE and PE) made to their company sponsored retirement plan and in the contributions UE employees (UE) made to their company sponsored retirement plan. Hypotheses 3 was supported in Sample 1, which showed a statistically significant increase in the number of preintervention participating employees who were contributing at least the minimum required to receive full employer match. The company in Sample 2 did not offer an employer match. Sample 3 had no change, as 100% of preintervention participating employees were contributing at least the minimum required to receive full employer match and continued to do so at post-intervention. Lastly, Hypotheses 4 was supported in all three samples, which showed statistically significant increases in the number of employees who requested and attended follow-up one-on-one meetings with an advisor.

These findings suggest that employees increased their levels of engagement in the employer sponsored retirement plan following the financial psychology intervention, indicating an overall upward movement on the Horwitz–Klontz Employee Retirement Engagement Hierarchy. Overall, the number of UE employees was reduced by 38%, and 68% of the 198 eligible employees held one-on-one meetings with financial advisors to discuss retirement planning following the intervention meeting. This is a significant increase from previous rates reported by the companies. The overall weighted averages of voluntary employee contributions for the 198 employees were increased from 4.03% to 5.61%, representing a 39.2% increase.

Another measure of the effectiveness of the intervention is in terms of the actual dollar value impact resulting from increased employee participation. For the 198 eligible employees within these three employer groups, the 1-hour financial psychology intervention increased the total 401(k) retirement savings contributions by \$199,445 in annual contributions and employer matching funds. These results relate to the current year, and do not take into account subsequent pay increases, future voluntary increases in contribution amounts, return on the invested assets, and the compounding of these ongoing contributions over time. Assuming 10 years of continuing contributions and 3% annual compensation raises, the results of this intervention are projected to generate over \$2,495,000 before investment gains/losses and compounding.

Strengths, Limitations, and Future Directions

This study has noteworthy limitations. While there was strong evidence in support of behavioral changes following the intervention in a real-world financial planning setting, this study lacked a control group, random selection of participants, and random assignment to conditions, which would be consistent with a randomized control trial. Future research would benefit from the inclusion of a comparison group that participated in a typical retirement plan meeting. Additionally, the intervention was tested using medium to small sized employer groups. As such, it would be difficult to generalize these findings to larger employee groups. Future testing of larger employer groups would be beneficial.

The intervention was delivered by the same presenter across all three groups using the same delivery method. The presenter was trained in the financial psychology intervention by the researchers. However, different financial advisors were present for the follow-up meetings with the three employer groups, none of whom were trained in the financial psychology intervention. While the results of the three groups showed significant increases across all measures tested, it is likely that the results were impacted by the skill level and motivations of the follow-up financial advisor. It is possible that had the advisors been aware of the details of the financial psychology intervention, they could have helped reinforce the message and further enhance motivation. Future research would benefit from financial advisors who were trained in the financial psychology intervention under study.

The study also has noteworthy strengths. The intervention was designed for and delivered to an actual employee group in its natural setting. While generalizability is limited by the lack of the experimental controls discussed earlier, it is enhanced by the inclusion of the actual target group for which the intervention was designed, and not relegated to a laboratory outside of a work setting with more significant subject selection limitations. The researchers also examined the effectiveness of the intervention across three employee groups, with diverse job descriptions, compensation, demographics, and plan types. The findings were similar for all three groups of employees in both white-collar and blue-collar occupations, different ages, gender splits, and levels of income. A notable difference between plan types was also included, with one employer offering a 6% match, another having no match, and one with a 5% match, offering additional support for the generalizability of results.

The results of this study revealed several findings of interest for future research. The bank employees represented a traditional white-collar occupation group and had the highest average 401(k) account balances, while the other two groups studied represented traditional blue-collar occupations. The overall employee post participation rate and average post contribution rate were the highest for the bank group; however, the bank group had the highest preintervention average contribution rate. These findings lead us to question if the occupation, and possibly higher levels of education and financial literacy, were driving the greater levels of employee engagement. Since the bank

group was in the financial services industry, one might expect greater awareness of the need to save, as well as employees who are more likely to have higher levels of education and financial literacy. Therefore, the connection, if any, between occupation type, education levels, financial literacy, and employee engagement behaviors is uncertain.

Overall, these results represent an important step in examining the effectiveness of financial psychology methods and theory on changing consumer financial behaviors. When the volume of potential PE and UE employees across all retirement plans in the United States are considered, this application of financial psychology could hold tremendous potential to positively impact the retirement readiness for millions of Americans. Considering most retirement plans providers hold annual meetings for employees, the ability to engage a significant number of PE and UE employees using financial psychology interventions can occur relatively quickly. Additionally, financial psychology methods can be utilized by financial service companies, individual financial representatives, and financial planners, to help address the lack of retirement planning engagement by their clients across a variety of financial topics and product solutions.

Financial Planning Implications

The findings of this study suggest several implications for financial planners. First, many clients and potential clients can be classified as unengaged in some aspect of their financial lives. For these individuals, the availability of financial tools, financial education, robo-advisors, and general financial advice, do not appear to be sufficient to move them into action. Engagement for these individuals could be enhanced if planners integrate financial psychology concepts and tools into their client engagement efforts. For example, planners could utilize assessments to better understand the individual's money scripts, and craft communication and dialogue to more effectively connect with them. Also, planners could use motivational interviewing techniques to assess where the individual currently resides in the behavioral change process, and thus adjust their approach to effectively motivate and facilitate change (Klontz, Kahler, & Klontz, 2016). If the planner recognized UE types of behavior, the application of a more qualitative approach versus the traditional education and information quantitative approach, may be more effective in motivating the client to engage the planning process.

Secondly, the results of this study suggest that for clients who are already engaged in their retirement planning, financial psychology efforts may be helpful in deepening their level of engagement. Specifically, rather than focusing on educating clients regarding the benefits of saving for retirement and details on the various investment vehicles available, planners could benefit from the use of financial psychology concepts and tools (e.g., Horwitz & Klontz, 2013; Klontz, Britt, & Archuleta, 2015; Klontz, Kahler, et al., 2016) to help motivate clients toward action.

The results and implications of this research bring to light a troubling fact about how financial service products and financial services are marketed to the American population. Most financial services are designed and targeted specifically for the AE's within our population, while the unique psychological barriers to participating in the PE and UE groups are largely ignored. This begs the question, is the root cause of the poor state of retirement readiness in America driven more by the lack of financial literacy and education, or by the lack of understanding or ability of the financial services industry to reach UE and PE individuals? It is of course easier to speak to the motivated AE employees who follow the path of the informed and educated investor. This study offers support for the potential of financial psychology interventions to unlock the retirement readiness motivation for UE and PE working Americans who are in desperate need of proper retirement planning, guidance, and help.

References

- Archuleta, K. L., Grable, J. E., & Burr, E. (2015). Solution focused financial therapy. In B. T. Klontz, S. L. Britt, & K. L. Archuleta (Eds.), *Financial therapy: Theory, research & practice* (pp. 121–141). New York, NY: Springer Publishing.
- Bayer, P. J., Bernheim, B. D., & Scholz, J. K. (2008). The effects of financial education in the workplace: Evidence from a survey of employers. *Economic Inquiry*, 47(4), 605–624. doi:10.1111/j.1465-7295.2008.00156.x
- Benartzi, S., & Thaler, R. H. (2007). Heuristics and biases in retirement savings behavior. *The Journal of Economic Perspectives*, 21(3), 81–104. doi:10.1257/jep.21.3.81
- Bernheim, B. D., & Garrett, D. M. (1996). *The determinants and consequences of financial education in the workplace: Evidence from a survey of households* (NBER Working Paper No. w5667). Cambridge, MA: National Bureau of Economic Research. Retrieved from National Bureau of Economic Research website: <http://www.nber.org/papers/w5667>
- Bernheim, B. D., & Garrett, D. M. (2003). The effects of financial education in the workplace: Evidence from a survey of households. *Journal of Public Economics*, 87(7), 1487–1519. doi:10.1016/S0047-2727(01)00184-0
- Britt, S. L., Klontz, B. T., Tibbetts, R., & Letiz, L. (2015). The financial health of mental health professionals. *Journal of Financial Therapy*, 6(1), 17–32. doi:10.4148/1944-9771.1076
- Consumer Financial Protection Bureau. (2013). *CARD act report: A review of the impact of the CARD act on the consumer credit card market*. Retrieved from Consumer Financial Protection Bureau website: http://files.consumerfinance.gov/f/201309_cfpb_card-act-report.pdf
- de Shazer, S., Dolan, Y., Korman, H., McCollum, E., Treppe, T., & Berg, I. K. (2007). *More than miracles: The state of the art of solution-focused brief therapy*. New York, NY: Taylor and Francis Group.
- Fernandes, D., Lynch, J. G., Jr., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861–1883. doi:10.1287/mnsc.2013.1849
- Gale, W. G., Iwry, J. M., & Orszag, P. R. (2005). *The automatic 401(k): A simple way to strengthen retirement* (Policy Brief 2005-1). Washington, DC: Retirement Security Project. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/200502_28_401k.pdf
- Gutter, M. S., Hayhoe, C. R., & Wang, L. (2007). Examining participation behavior in defined contribution plans using the transtheoretical model of behavior change. *Journal of Financial Counseling and Planning*, 18(1), 46–60.
- Horwitz, E. J. (2015). *Three essays on the effectiveness of financial education in the workplace*. Doctoral dissertation, Kansas State University, Manhattan, KS. Retrieved from <http://krex.k-state.edu/dspace/handle/2097/19109>.
- Horwitz, E. J., & Klontz, B. T. (2013). Understanding and dealing with client resistance to change. *Journal of Financial Planning*, 26(11), 27–31.

- Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296–316. doi:10.1111/j.1745-6606.2010.01170.x
- Kerkmann, B. C. (1998). Motivation and stages of change in financial counseling: An application of a transtheoretical model from counseling psychology. *Financial Counseling and Planning*, 9(1), 13–20.
- Klontz, B. T., Bivens, A., Klontz, P. T., Wada, J., & Kahler, R. (2008). The treatment of disordered money behaviors: Results of an open clinical trial. *Psychological Services*, 5(3), 295–308. doi:10.1037/1541-1559.5.3.295
- Klontz, B. T., & Britt, S. L. (2012). How clients' money scripts predict their financial behaviors. *Journal of Financial Planning*, 25(11), 33–43.
- Klontz, B. T., Britt, S. L., & Archuleta, K. L. (Eds.). (2015). *Financial therapy: Theory, research & practice*. New York, NY: Springer Publisher.
- Klontz, B., Britt, S. L., Mentzer, J., & Klontz, T. (2011). Money beliefs and financial behaviors: Development of the Klontz Money Script Inventory. *The Journal of Financial Therapy*, 2(1), 1–22. doi:10.4148/jft.v2i1.451
- Klontz, B. T., Horwitz, E. J., & Klontz, P. T. (2015). Stages of change and motivational interviewing in financial therapy. In B. T. Klontz, S. L. Britt, & K. L. Archuleta (Eds.), *Financial therapy: Theory, research & practice* (pp. 570–594). New York, NY: Springer Publisher.
- Klontz, B., Kahler, R., & Klontz, T. (2016). *Facilitating financial health: Tools for financial planners, coaches, and therapists* (2nd ed.). Cincinnati, OH: National Underwriters Company.
- Klontz, B., & Klontz, T. (2009). *Mind over money: Overcoming the money disorders that threaten our financial health*. New York, NY: Broadway Business.
- Klontz, B. T., Klontz, P. T., & Tharp, D. (2016). Experiential financial therapy. In B. T. Klontz, S. L. Britt, & K. L. Archuleta (Eds.), *Financial therapy: Theory, research & practice* (pp. 174–204). New York, NY: Springer Publisher.
- Klontz, B. T., Seay, M. C., Sullivan, P., & Canale, A. (2014). The psychology of wealth: Psychological factors associated with high income. *Journal of Financial Planning*, 27(12), 46–53.
- Martin, M. (2007). *A literature review on the effectiveness of financial education* (FRBR Working Paper No. 07-03). Richmond, VA: Federal Reserve Bank of Richmond. Retrieved from <http://www.richmondfed.org/>
- Miller, M., Reichelstein, J., Salas, C., & Zia, B. (2015). Can you help someone become financially capable? A meta-analysis of the literature. *The World Bank Research Observer*, 30(2), 220–246. doi:10.1093/wbro/lkv009
- Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change*. New York, NY: Guilford.
- Munnell, A. H. (2012, July). *401 (k) Plans in 2010: An update from the SCF*. Chestnut Hill, MA: Center for Retirement Research at Boston College. Issue in Brief 12–13. Retrieved from http://crr.bc.edu/wp-content/uploads/2012/07/IB_12-13-508.pdf
- Nabeshima, G., & Klontz, B. T. (2015). Cognitive behavioral financial therapy. In B. T. Klontz, S. L. Britt, & K. L. Archuleta (Eds.), *Financial therapy: Theory, research & practice* (pp. 239–267). New York, NY: Springer Publisher.
- Nichols, M. P., & Schwartz, R. C. (2001). *Family therapy: Concepts and methods* (5th ed.). Boston, MA: Allyn & Bacon.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2(2), 175–220. doi:10.1037/1089-2680.2.2.175
- Prochaska, J. O., DiClements, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist*, 47(9), 1102–1114. doi:10.1037/0003-066X.47.9.1102
- Prochaska, J. O., Norcross, J. C., & DiClemente, C. C. (1994). *Changing for good: A revolutionary six-stage program for overcoming bad habits and moving your life positively forward*. New York, NY: William Morrow and Company, Inc.
- Samuelson, W., & Zeckhauswer, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, 1(1), 7–59. doi:10.1007/BF00055564
- Shefrin, H. M., & Statman, M. (1984). Explaining investor preference for cash dividends. *Journal of Financial Economics*, 13(2), 253–282. doi:10.1016/0304-405X(84)90025-4
- Shockey, S. S., & Seiling, S. B. (2004). Moving into action: Application of the transtheoretical model of behavior change to financial education. *Financial Counseling and Planning*, 15(1), 41–52.

- Statman, M. (2008). What is behavioral finance? In F. J. Fabozzi (Ed.), *Handbook of finance* (Vol. 2, pp. 79–84). Hoboken, NJ: Wiley & Son, Inc.
- Taylor, C. D., Klontz, B. T., & Britt, S. L. (2015). Reliability and convergent validity of the Klontz Money Script Inventory-Revised (KMSI-R). *Journal of Financial therapy*, 6(2), 1–13. doi:10.4148/1944-9771.1100
- U.S. Bureau of Labor Statistics. (2015). *Automatic enrollment, employer match rates, and employee compensation in 401(k) plans*. Retrieved from <http://www.bls.gov/opub/mlr/2015/article/automatic-enrollment-employer-match-rates-and-employee-compensation-in-401k-plans.htm>
- VanDerhei, J. (2010). The impact of automatic enrollment in 401(k) plans on future retirement accumulations: A simulation study based on plan design modifications of large plan sponsors. *EBRI Issue Brief*, 341, 1–23.
- Walstad, W., Urban, C., Asarta, C., Breitbach, E., Bosshardt, W., Heath, J., . . . Xiao, J. J. (2017). Perspectives on evaluation in financial education: Landscape, issues, and studies. *Journal of Economic Education*, 48(2), 93–112. doi:10.1080/00220485.2017.1285738
- Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R., & Johnson, J. L. (2004). Applying the transtheoretical model of change to debt reducing behavior. *Financial Counseling and Planning*, 15(2), 89–100.
- Xiao, J. J., & O’Neill, B. (2016). Consumer financial education and financial capability. *International Journal of Consumer Studies*, 40(6), 712–721. doi:10.1111/ijcs.12285
- Xiao, J. J., O’Neill, B., Prochaska, J., Kerbel, C., Brennan, P., & Bristow, B. (2004). A consumer education program based on the Transtheoretical Model of Change. *International Journal of Consumer Studies*, 28(1), 55–65. doi:10.1111/j.1470-6431.2004.00334.x

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